

IN THE CLAIMS

Please amend the claims as follows:

- 1.(original) Apparatus for predicting the outcome of a conditional branch within a computer system, the apparatus comprising means for identifying the occurrence of a conditional branch, means (20) for obtaining data relating to system activity since a previous branch, means for comparing said data with data relating to previous system activity, and means for predicting the branch outcome based on such comparison.
- 2.(original) Apparatus according to claim 1, wherein the data relating to system activity comprises average system activity.
- 3.(currently amended) Apparatus according to claim 1 ~~or claim 2~~, wherein an activity history table is provided in which is stored data relating to previous system activity and the branch outcome to which such activity corresponded.
- 4.(original) Apparatus according to claim 3, comprising means for, when a conditional branch is encountered, retrieving data relating the system activity between the current and previous branches, and means for comparing this data with the data contained in the activity history table, wherein said means for predicting the branch outcome selects the branch outcome which has associated therewith activity data which most closely resembles the current retrieved activity data.
- 5.(original) Apparatus according to claim 4, wherein the activity history table updated with the latest activity data and the selected branch outcome.

6.(currently amended) Apparatus according to ~~any one of the~~
~~preceeding claims~~ 1, including means for predicting the outcome of a
conditional branch using the outcome history of that and/or
previous branches.

7.(original) Apparatus according to claim 7, wherein data
relating to the activity of the system is only used for branch
outcome prediction if the confidence of accuracy of branch outcome
prediction using branch history is relatively low.

8.(original) A method for predicting the outcome of a conditional
branch within a computer system, the method comprising the steps of
identifying (105) the occurrence of a conditional branch, obtaining
(106) data relating to system activity since a previous branch,
comparing (110) said data with data relating to previous system
activity, and predicting (108) the branch outcome based on such
comparison.